

5687

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton....., Director

State: Georgia

DESCRIPTIVE REPORT

Topographic } Sheet No. 3
Hydrographic }

LOCALITY

~~South Brunswick River and Fanny~~

~~Bluff Creek, Georgia.~~

St. Simon Sound

South Brunswick River

1935.

CHIEF OF PARTY

Hubert A. Paton.

U. S. GOVERNMENT PRINTING OFFICE: 1923

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO.

HYDROGRAPHIC TITLE SHEET

Acc. No. _____

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 3

REGISTER NO. 5887

State Georgia

General locality St. Simon Sound

Locality South Brunswick River

Scale 1:10,000 Date of survey April 30/34 Jan. 29, 1935.

Vessel Party No. 26

Chief of Party Hubert A. Paton

Surveyed by George W. Lovesee and A. F. Jankowski.

Protracted by J. D. Shearouse

Soundings penciled by C. T. Schwalb

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by _____

Inked by _____

Verified by _____

Instructions dated November 17 and December 5, 1933.

Remarks: _____

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. 3
SOUTH BRUNSWICK RIVER AND
FANCY BLUFF CREEK, GEORGIA.
PARTY NO. 26 - PROJECT NO. H. T. 168

March 1, 1935.

INSTRUCTIONS:

The work on this sheet was done in accordance with written instructions dated November 17, and December 5, 1933, and oral instructions from the Chief, Section of Field Work. On account of the little commercial importance of the South Brunswick River, it was decided to locate control from the photographs only.

LIMITS:

This sheet is a survey of South Brunswick River, Hillery Creek, Fancy Bluff Creek, Radcliff Creek, and minor tributaries. It joins the work of the Launch MIKAWA, Lieut., John A. Bond, Commanding, at two points: The mouth of the South Brunswick River and the north end of Hillery Creek. This sheet joins #4 in Fancy Bluff Creek about 450 meters east of the Little Satilla River. The entire sheet lies within the limits set by Director's letter dated May 9, 1934, reference number 22-RS, 1990 (26).

JUNCTIONS:

The junction between Sheets 3 and 4 were satisfactory. At the mouth of the South Brunswick River, the soundings on the boatsheet compared quite well with those transferred from the Mikawa's boatsheets. On the smooth sheet, some of these soundings are now one foot less but the junction is still satisfactory. At the mouth of Hillery Creek, the Mikawa's work does not extend upstream far enough to join our lines. This area was completed by a party under Lieut., C. A. Egner and his results are not available for comparison. The lines on Sheet 3 were extended out from Hillery Creek into Turtle River until a depth of two fathoms or more was obtained. It is believed this was sufficient to join the work in the river.

DATUM:

The projection on this sheet was based on the North American, 1927 Datum. The triangulation stations had been computed on the North American Datum but approximate correction factors could be obtained by comparison of the adjusted first-order stations in the vicinity to plot them on this sheet.

For Station Creek, the following values were used:

Latitude	- 3.1 meters.
Longitude	+ 0.3 meters.

For all other stations, the values were:

Latitude	- 1.6 meters.
Longitude	+ 1.2 meters.

SIGNALS:

All hydrographic signals in the northern portion of the sheet were located by reference to the shoreline as traced from photo-topographic sheets compiled by Lieut., (j.g.) S. B. Grenell.

Below the bridge on U. S. Highway #17, the signals were located by sextant angles. The topographic signals were located by plane-table by Lieutenant John A Bond's Party on the Mikawe. Signal Kro was found to be in error and was relocated by sextant cuts. The cuts locating Signals May, Yes, Ire, and Eat did not check very well. Station May was on the northeast corner of the bridge at the high water line, so its position was accepted from the photo-topographic sheet. The cuts taken at Signals Kro and Pix were plotted, using Signal May as a fixed initial. The Signals then plotted quite well with respect to the shoreline but it is believed that the entire shoreline between Signals Pix and May is plotted about ten meters or more too far North. However, the soundings are shown in correct relation to the shore and if one is shifted the other should be moved also. The southerly sounding line in this area plots behind the high water line in two places, and was not inked-in on the smooth sheet. If the line is accepted as correct, the shoreline should be shown as indicated by the dashed pencilled lines.

Verifier
corrected
shoreline
to agree
with Air
photo-comp.
The eds then
plotted
satisfactorily

SHORELINE:

The banks of all streams on this sheet consist of salt marsh grass with soft mud flats between the grass line and the low water line. The center portion of Blythe Island, Colonels Island, and the mainland are heavily wooded. The high water line shown on the smooth sheet was obtained from photo-topographic and plane-table sheets. (see Signals).

SURVEY METHODS:

The soundings were taken with a hand lead line using leads of ten to fifteen pounds according to the depth. All lines were run parallel to the axis of the stream. There was not sufficient current to require all lines to be run with the current. No cross lines were considered necessary. ✓

Positions were determined by the three point fix method wherever possible. In some of the smaller streams, it was not possible to obtain such fixes and the positions were spotted on the boatsheet in reference to the shoreline. ✓

CHANNELS:

The channel through Fancy Bluff Creek constitutes a portion of one of the three routes between Brunswick River and St. Andrew Sound. At the present time, the deepest route is through Jekyll Creek (see Sheet 1), but in bad weather, rough water is encountered in St. Simons Sound and in Jekyll Sound. The second route recommended, in the Intracoastal Waterway, is through Jointer Creek (see Sheet 2) but at present this creek is bare at mean low water at two places. The route through Fancy Bluff Creek is ten miles longer but is more protected from storms than either of the other routes. At present, the least depth is 3 feet and is found in Fancy Bluff Creek in two places: about 0.2 mile and about 1.2 miles from the south end. ✓

The South Brunswick River has been used as a dumping ground for dredges working in Turtle River. Some shoals with a least depth of eleven feet were found near Signal Use which may have been the result of this. However, small boats can still find deep water by following the "ebb-tide bends". A depth of 15 feet is ^{probably} ~~maximum~~ ^{only 14 ft.} that can be carried with local knowledge up to the fixed bridge on Highway #17 which has a vertical clearance of 21.6 feet (6.6 meters) at mean low water and a horizontal clearance of 39.7 feet (12.1 meters). About 0.5 of a mile above the bridge, a ^{maximum} ~~least~~ depth of 9 feet is found. From this point, the depth decreases gradually to one foot at the junction with Hillery Creek. This depth can be carried on through to Turtle River. ✓

The character of the bottom varies from soft mud to hard sand or shells. ✓

CURRENTS:

The currents are tidal in character and moderate in velocity. The tide divides in Fancy Bluff Creek about one-half mile from the south end, but this is affected by winds and other conditions. ✓

✓ RPS

In Hillery Creek, the tide divides at approximately Latitude $31^{\circ} 12.3'$ and this point was taken as the dividing line between the creek and South Brunswick River.

DANGERS:

In addition to the 11 foot spot mentioned under "Channels", there are numerous piling along the north end of Colonels Island extending 5 to 25 meters offshore. There are several shoals in South Brunswick River which bare at mean low water and which are found at the following places:

Latitude	Longitude
$31^{\circ} 07.9'$	$81^{\circ} 31.9'$
$31^{\circ} 08.7'$	$81^{\circ} 32.7'$
$31^{\circ} 09.1'$	$81^{\circ} 33.5'$

COMPARISON WITH PREVIOUS SURVEYS:

Maximum depth in the South Brunswick River opposite the mouth of Fancy Bluff Creek is now 15 feet where 19 feet is shown on Chart No. 447. Fancy Bluff Creek has not changed very much but the small streams leading into it have shifted their point of connections or have disappeared entirely.

The Island shown about 0.4 mile below the bridge on Route No. 17 is now two islands. These were omitted on the phototopographic sheet and were sketched in by the hydrographer.

- these islands appear on the photographs. They have been added to air-photocompilation T-5125 and to this survey.

As far as known, this sheet is the original hydrographic survey for the area north of the junction of Fancy Bluff Creek and South Brunswick River.

DISCREPANCIES:

See paragraph under "Signals".

Position 87 E and 80 near Latitude $31^{\circ} 10.1'$ Longitude $81^{\circ} 33.5'$ plot approximately in the same spot. A depth of $8\frac{1}{2}$ feet was obtained on E day and 6 feet on C day. On the boat sheet, positions 87 E falls about 18 meters south of 8 C but it is believed that a mistake was made in setting the left angle on the protractor

pos 87 E changed see sounding records

The shoal north of the positions probably has a steep slope and soundings two or three meters apart could show a fathom difference in depth. The lesser of the two soundings was plotted.

GEOGRAPHIC NAMES:

The following names are shown on the charts of this area and are still in common use:

South brunswick River.
Turtle River.
Blythe Island.
Colonels Island. (sometimes called South Brunswick Island but not sufficiently common to warrant a change).
Fancy Bluff Creek.
Fancy Bluff.
Hillery Creek.

The following names appear on Geological Survey Maps and are recommended for adoption on the charts:

Radcliff Creek.
Rough Island.
Visavis Island.

MISCELLANEOUS:

There are five range lights on this sheet but they mark ranges in Turtle River, which was surveyed by the Launch Mikawe. Therefore, their positions and azimuths are not reported with this sheet. There are no landmarks of sufficient importance to warrant being placed on the charts.

These streams, at the present time, are being used only by shallow draft boats and it is believed this survey was sufficient for their needs. If large ships ever have occasion to enter South Brunswick River, a very thorough survey should be made to locate all the shoals formed by the dumping of dredged material from Turtle River.

STATISTICS:

Total number of positions	722
Total number of soundings	4,017
Statute miles of sounding lines	99.2

Respectfully submitted,

George W. Lovesee
George W. Lovesee (Lieut.(j.g.)C.&G.S.)

TO ACCOMPANY SHEET 3

This sheet and accompanying records have been
inspected and are approved.

Hubert A. Paton
Hubert A. Paton,
Lieut., C. & G. S.,
Chief of Party.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. ...5687

The following statistics will be submitted with the
cartographer's report on the sheet:

Number of positions on sheet	.722.
Number of positions checked	..84..
Number of positions revised	..10...
Number of soundings recorded	4017
Number of soundings revised	..33...
Number of signals erroneously plotted or transferred	..1...

Date:

Verification by *J.W. Parsons*
Inked by - S.R. Ludlow
Review by *V.D. Behn*

Time: *6 1/2 days*
Time: *2 days*
Time: *24 1/2 hrs.*

Diagram No. 1242-2

Date. March 19, 1935

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Turtle River</u> ✓	Same	✓		
	<u>Hillery Creek</u> ✓	"	✓		
	<u>Visavis Island</u> ✓		✓		
	<u>Rough Island</u> ✓		✓		
	<u>Ratcliff Creek</u> ✓	Ratcliff =	✓	(K.S.H.R.)	
	<u>Blythe Island</u> ✓	"	✓		
	<u>South Brunswick River</u> ✓	"	✓		
	<u>Fancy Bluff</u> ✓	Fancy Bluff	✓		
	<u>Fancy Bluff Creek</u> ✓	Same	✓		
	<u>Little Satilla River</u> ✓	"	✓		
	<u>Colonels Island</u> ✓	"	✓		

LAC

April 29, 1935

Division of Hydrography and Topography:

FE

✓ Division of Charts: Attention: Mr. E. P. Ellis

Tide Reducers are approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 5687

Locality South Brunswick River, Georgia

Chief of Party: H. A. Paton in 1934-1935
Plane of reference is mean low water, reading
1.4 ft. on tide staff at Blythe Highway Bridge
14.4 ft. below B.M. 1

Height of mean high water above plane of reference is 7.6 feet

Condition of records satisfactory except as noted below:

Ham
Acting Chief, Division of Tides and Currents.

Report on - H-5687

Surveyed in - April-Jan. 1935

Chief of Party - Hubert A. Paton Surveyed by - {George W. Love sec
A. F. Jankowski

Protracted by - J. D. Shearouse Soundings Plotted by - C. T. Schwalb

Ver. and Inked by - {J. W. Parsons
S. R. Ludlow

The records are complete and conform to the requirements of the general instructions. ✓

None of the usual depth curves can be completely drawn. However portions of the usual depth curves can be drawn. ✓

All positions recorded have been generally plotted satisfactorily with few corrections as noted in the records. ✓

The junctions with H-5686 and H-5594 are satisfactory. Junction with 5688 could not be shown on this sheet, as it is not Inked. ✓

Remarks

Most of the positions between ~~Lat~~ ^{Long} 81-33.2' and Lat. 81-34.3 and up as far as signal Day are plotted 10 to 20 meters S.W. of those on the Boat sheet, this is due to the shore line and signals May, Yes, Ire and Eat being in error on the boat sheet. ✓

For the two grass islands at Lat. 31-09.15 Long. 81-33.7 see descriptive report (page 4) ^{see 87} ~~direction~~

Respectfully submitted
John W. Parsons
Samuel R. Ludlow.

Verifier has compared survey with Air Photo Compilations

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5687 (1934-35)

South Brunswick River, St. Simon Sound, Georgia

Surveyed in April, 1934 - January, 1935

Instructions dated Nov. 17, 1933, Dec. 5, 1933 (H. A. Paton)
and Oral Instructions

Hand Lead and Pole Soundings.

3 Point Fixes on Shore Signals.

Positions in minor creeks spotted
in reference to shore line.

Chief of Party - H. A. Paton.

Surveyed by - G. W. Lovesee and A. F. Jankowski.

Protracted by - J. D. Shearouse.

Soundings penciled by - C. T. Schwalb.

Verified by - J. W. Parsons.

Inked by - S. R. Ludlow.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The "Descriptive Report" is clear and comprehensive and satisfactorily covers all matters of importance.

2. Compliance with Instructions for the Project.

This survey complies with the instructions for the project.

3. Sounding Line Crossings.

Such crossings as result from the work are in good agreement.

4. Depth Curves.

Within the limits of the survey the usual depth curves may be satisfactorily drawn.

5. Junctions with Contemporary Surveys.

The junctions with H-5579 (1934-35) on the southeast and H-5594 (1934) on the north are satisfactory.

The junction with H-5688 (1934-35) will be considered in the review of that survey.

6. Comparison with Prior Surveys.

a. H-575 (1856) and H-587 (1857).

These surveys overlap small portions of the present survey. A

comparison between the above surveys and the present survey indicates some change in depths and shore line. Because of the time elapsed between the earlier surveys and the present survey and the general character of the area, it is unnecessary to consider in detail, from the standpoint of information to be carried forward, the various changes noted. The present survey should supersede the above surveys for charting purposes.

b. H-2391 (1899).

This survey overlaps a small portion of the present survey at the lower end of South Brunswick River. Some change has taken place in this area, the new survey, in general, being somewhat shoaler. All the important shoals on this survey have been covered by the new survey.

c. H-4045 (1918-19).

This survey overlaps a small portion of the present survey at the junction of Hillery Creek and Turtle River. The 2 surveys are in fair agreement.

7. Comparison with Chart No. 447.

a. Hydrography.

This chart covers a small portion of the northern and southern limits of the new survey, the main part of the area covered by the new survey having never been charted. Within the common area the chart is largely a compilation of the old surveys mentioned in the previous paragraph and of various surveys by the U. S. Engineers (Bp's. 14483 (1912), 15490 (1914), 16434 (1915), 19093 (1924)). Some change has taken place in this area, the new survey in general being somewhat shoaler. All the important shoals have been covered by the new survey. For future charting within the common area the new survey should supersede the information on the chart.

The only important change noted is an 11 foot sounding in lat. $31^{\circ}08.3'$, long. $81^{\circ}32.4'$ on the new survey, which falls in depths of 18 feet on the chart. The 18 foot sounding probably originates with the U. S. Engineers' survey of 1924 (Bp. 19093). This shoal, together with surrounding shoals, is probably due to dumping by dredges in this section of the river. (See page 3 of the Descriptive Report.)

b. Controlling Depths.

The controlling depth of Fancy Bluff Creek as charted is $2\frac{1}{2}$ feet as of May, 1934. The present survey (in this creek) was made in December, 1934, and appears to show 3 feet as the controlling depth.

c. Aids to Navigation.

The positions of the 2 charted range lights in approximately lat. $31^{\circ}08.0'$, long. $81^{\circ}31.8'$ are in good agreement with the positions shown on the new survey.

8. Field Plotting.

The field plotting and protracting are satisfactory except that position 98B (lat. $31^{\circ}10.1'$, long. $81^{\circ}33.0'$) was plotted inside the high water line on the smooth sheet, as well as the boat sheet, and no recommendation was made as to its disposition. A comparison with the photographs indicates that the plotted position is correct and that a small slough branches off the main creek in this vicinity.

9. Additional Field Work Recommended.

No additional field work is required.

10. Superseding Old Surveys.

Within the area covered, the present survey supersedes the following surveys for charting purposes:

H- 575 (1856)	in part.
H- 587 (1857)	" "
H-2391 (1899)	" "
H-4045 (1918-19)	" "

11. Reviewed by - V. D. Behn, June, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, *C. K. Green.*
Chief, Section of Field Records.

L. O. Colburn.
Chief, Division of Charts.

Frank S. Borden
Chief, Section of Field Work.

G. H. de
Chief, Division of H. & T.

applied to chart 447
3/3-36 J.H.S.

Applied to Chart 1242. Mar 16, 1937
g.H.S.

25 Feb, 1936
E.H.P.